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FORM PTO-1300
(REV 12-29-99)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371

82032-00001

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

09/555013

INTERNATIONAL APPLICATION NO.

PCT/EP98/07517

INTERNATIONAL FILING DATE

16 NOVEMBER 98 (16.11.98)

PRIORITY DATE CLAIMED

24 NOVEMBER 97 (24.11.97)

TITLE OF INVENTION

SYSTEM FOR PROCESSING BROADCASTED SIGNALS

APPLICANT(S) FOR DO/EO/US

Andrew WAJS, Robert FRANS DONK

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

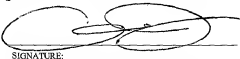
1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This express request to begin national examination procedures (35 U.S.C. 371(f) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☒ has been transmitted by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:

- Courtesy copy of the International Application as published w/ International Search Report.

- Courtesy copy of the International Preliminary Examination Report.

U.S. APPLICATION NO. (if known, see 37 CFR 1.52) 09/555013		INTERNATIONAL APPLICATION NO. PCT/EP98/07517		ATTORNEY'S DOCKET NUMBER 82632-0001	
<input checked="" type="checkbox"/> The following fees are submitted: BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(5)): Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO \$970.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO \$840.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$690.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$670.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1)-(4) \$96.00 <div style="text-align: right;">ENTER APPROPRIATE BASIC FEE AMOUNT = \$ 840—</div>				CALCULATIONS PTO USE ONLY <div style="border: 1px solid black; height: 100px; width: 100%;"></div>	
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input checked="" type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$ not included 130—	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	7 - 20 =		X \$18.00	\$	
Independent claims	1 - 3 =		X \$78.00	\$	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$260.00	\$	
TOTAL OF ABOVE CALCULATIONS =				\$	
Reduction of 1/2 for filing by small entity, if applicable. A Small Entity Statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28).				\$	
SUBTOTAL =				\$ 840—	
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$	
TOTAL NATIONAL FEE =				\$ 840—	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$	
TOTAL FEES ENCLOSED =				\$ 840—	
				Amount to be refunded:	\$
				charged:	\$
a. <input checked="" type="checkbox"/> A check in the amount of \$_____ to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$_____ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 501349 . A duplicate copy of this sheet is enclosed.					
NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.					
SEND ALL CORRESPONDENCE TO: <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;"> Celine Jimenez Crowson Hogan 3, Hartson, L.L.P. 555 13th Street, N.W., # 701-W Washington, DC 20004 </div> <div style="width: 45%; text-align: right;">  SIGNATURE: Celine Jimenez Crowson NAME 40,357 REGISTRATION NUMBER </div> </div>					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

09/355019
432 Rec'd PCT/PTO 23 MAY 2000

In re Application of:)
)
Andrew WAJS et al.) 371 of International Application
)
Serial No.: **not yet assigned**) IA #: **PCT/EP98/07517**
)
Filed: **even date herewith**) IA Date: **16 November 98**
)
Title: **SYSTEM FOR PROCESSING**)
BROADCASTED SIGNALS)

PRELIMINARY AMENDMENT

Commissioner of Patents and Trademarks
Washington, D.C.

Sir:

Prior to calculation of the filing fee and examination on the merits,
please amend the above-identified application as follows.

IN THE CLAIMS:

Claim 5, lines 1 and 2, change "any one of the preceding claims" to

--claim 1--.

Claim 6, lines 1 and 2, change "anyone of the preceding claims" to

--claim 1--.

REMARKS

The above amendments are being made to delete multiple
dependencies in the claims and does not add to or depart from the original
disclosure or constitute prohibited new matter.

Respectfully submitted,



Celine Jimenez Crowson
Attorney for Applicant
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Washington, D.C. 20004
PH: 202-637-5600

System for processing broadcasted signals

The present invention relates to a system for controlling a tuning means for receiving broadcasted signals according to the preamble of claim 1.

Such systems are known and are used in analogue TV sets and digital TV sets. Digital TV sets operate in accordance with the DVB (Digital Video Broadcasting) standard and recently introduced digital TV sets are enhanced with peripherals like modems for user-feedback. Further, microcomputers, in particular PC's, are generally known for which recently internal or external devices are introduced for receiving broadcasted signals, such as analogue or DVB signals. An example of such a device is an integrated network PC card. PC's with modems are widely used to access the internet, wherein generally a browser program is used. These recent developments show an integration of PC and TV technology. GB-A-2 307 381 discloses an example of such an integrated system. In this known system a data file is obtained from the internet and this data file is directly used to control the tuning means.

The present invention aims to provide an improved system of this type.

According to the invention a system of the above-mentioned type is provided characterized in that a number of URL's for broadcast services are defined as URL's, wherein the system comprises a memory for storing tuning information for a number of broadcast services, and means for selecting a URL on a web page, the microcomputer being adapted to retrieve tuning information from the memory by means of a selected URL, wherein the microcomputer is adapted to use the retrieved tuning information for controlling the tuning means to receive broadcast signals from the corresponding broadcast service.

In the system of the invention the information obtained by selecting a specific URL corresponding to a specific broadcast service is used by the system, i.e. the microcomputer to retrieve the corresponding tuning information from an internal memory. In this manner a flexible system is obtained, wherein the tuning information for the broadcast service can be adapted to the location where the system is used. Thereby the same web pages with URL's can be used world wide, while it is possible to use the information contained in the URL to provide the tuning means tuning information applicable to local broadcast services, which tuning information can be different for different locations.

The invention will be further explained by reference to the drawing in which the software architecture of an embodiment of the system according to the invention is schematically shown.

A system for processing Digital Video Broadcasting (DVB) signals comprises a microcomputer not further shown. The microcomputer is provided with a DVB device 1 also called a network card. This DVB device can be tuned to a specific transport stream as controlled by a driver 2 as will be further explained hereinafter. The microcomputer is connected to the internet and to a MPEG signal source, for example through a satellite, cable or terrestrial transmission. When the DVB device 1 is tuned to a specific transport stream, the video, audio or data information received is further processed in a manner known per se so that for example the video information will be displayed on the microcomputer monitor.

In the embodiment shown in the drawing, a browser program indicate as block 3, is used to access the internet and by going to a certain web site a web page can be displayed on the monitor in a manner known per se. Such web pages may contain one or more URL's providing a connection to another web site by clicking on such a URL, as is well known.

According to the present invention URL's are used to tune the DVB device 1 to a specific DVB service in the following manner. Activating a selected URL results in providing an IP address by the browser 3 to an IP stack 4.

5 The IP stack 4 computes a so-called MAC (Medium Access Control) address from the IP address received from the browser 3. A control program 5 which is part of the driver 2, receives this MAC address and looks up corresponding tuning information and a service identification from a

10 navigation table 6 stored in a memory. This tuning information and service identification are used by the driver 2 to control the DVB device 1 to tune to the DVB service corresponding to the selected URL. As the operation for tuning the network card or DVB device 1 to the correct

15 transport stream is generally known in DVB technology, this tuning is not further described.

In this manner a standard browser program 3 with IP stack 4 which is also standard in multicast Ethernet applications, can be used to tune the network card to the DVB

20 service. Thereby the system provides a full integration of PC and DVB TV technology in a simple manner. The network card 1 can be tuned to a desired DVB service by simply clicking for example on the name of this DVB service.

It is noted that the retrieval of the tuning

25 information from the navigation table is not restricted to the use of an IP address and computation of a MAC address. Other translations of the information in the URL into access information to retrieve the corresponding tuning information can be used.

According to a favourable embodiment the micro-computer is programmed such that the user can select a plurality of HTML pages for storing in memory so that frequently used web pages can be immediately displayed.

30 For example an electronic program guide can be stored in this manner in memory in the microcomputer so that this program guide is immediately available to the user. In this program guide URL's can be embedded for each of the DVB

services included in the program guide. By clicking on a URL for a selected DVB service the network card 1 will be tuned to the desired DVB service. Of course it is also possible to have a default setting in the computer for storing certain HTML pages.

As an alternative for a system based on a PC as a microcomputer, the system can be based on a DVB TV set having a so-called set top box. This set top box is preferably configured to cache a plurality of HTML pages as electronic program guide pages for the DVB TV set. As the set top box has a connection to the internet, one or more of the cached pages can provide URL's to internet sites instead of DVB services. In the present specification the word microcomputer is used to cover a PC, set top box or any other equivalent equipment. Further it is noted that the word internet is used to cover also any intranet or other equivalent network.

In an other embodiment of the system described, a special broadcast enhanced browser can be used, wherein the enhancement provides for processing of special URL syntax DVB addresses, wherein the normal internet address in a URL is replaced by a DVB address as follows:

dvb://<original network id>.<service id>/

In this example the DVB address is a 16 bit original network identifier in combination with a 16 bit service identifier. For compatibility with the internet protocol, the two 16 bit values can be split into four 8 bit values. The DVB address will be indicated in this specification as <DVB address>.

In a further embodiment, the URL can contain an indication of the type of DVB service such as TV, radio and data, in the following manner:

dvb-tv://<DVB address>

dvb-radio://<DVB address>

DVB-data://<DVB address>.

It is noted that in the above described embodiments MPEG signals are mentioned as an example of broadcast signals. It is also possible to apply the invention in a system operating with other broadcast signals and also with analogue signals. It is further noted that the wording 'broadcast channel' covers any non IP based broadcast channel.

CLAIMS

1. System for controlling a tuning means for receiving broadcasted signals, comprising a microcomputer, and means to connect the system to the internet, the microcomputer being adapted to process IP signals and to display web pages including URL's, wherein the microcomputer is adapted to obtain broadcast service information from the internet, characterized in that a number of URL's for broadcast services are defined as URL's, wherein the system comprises a memory for storing tuning information for a number of broadcast services, and means for selecting a URL, the microcomputer being adapted to retrieve tuning information from the memory by means of a selected URL, wherein the microcomputer is adapted to use the retrieved tuning information for controlling the tuning means to receive broadcast signals from the corresponding broadcast service.

2. System according to claim 1, wherein the microcomputer is adapted to translate the selected URL into an address which is used to access the memory for retrieving the tuning information of the corresponding broadcast service.

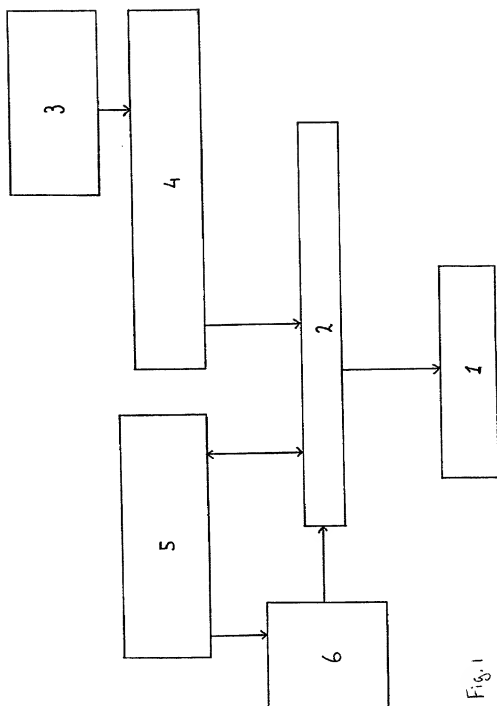
3. System according to claim 2, wherein the selected URL provides an IP address which is placed in an IP stack, wherein the IP address is translated in a MAC address, said MAC address being used to access said memory.

4. System according to claim 3, wherein the URL's for broadcast services are defined in a broadcast URL syntax (broadcast://<broadcast address>).

5. System according to any one of the preceding claims, comprising means for downloading a tuning table from an external source, preferably from the internet or a broadcast service provider.

6. System according to any one of the preceding claims, comprising means for selecting a plurality of HTML pages and means for caching the selected HTML pages.

7. System according to claim 6, wherein said HTML
5 pages include an electronic program guide, said electronic
program guide including URL's for broadcast services.



Declaration and Power of Attorney for Patent Application

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought, on the invention entitled SYSTEM FOR PROCESSING BROADCASTED SIGNALS, the specification of which was filed as International Application No. PCT/EP98/07517, filed November 16, 1998, Attorney Docket No. 82032-00001.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability in accordance with Title 37, Code of Federal Regulations, § 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

			Priority Claimed	
<u>97203667.7</u>	<u>Europe</u>	<u>24 November 97</u>	[x]	[]
(Number)	(Country)	(Day/Month/Year)	Yes	No

Prior Foreign Application(s)

			Priority Claimed	
<u> </u>	<u> </u>	<u> </u>	[]	[]
(Number)	(Country)	(Day/Month/Year)	Yes	No

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below.

(Application Serial No.)

(Filing Date)

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

PCT/EP98/07517

16 November 1998

(Application Serial No.)

(Filing Date)

(Status)

(Application Serial No.)

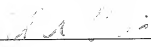

(Filing Date)

(Status)

I or we hereby appoint the following attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and request that all correspondence about the application be addressed to HOGAN & HARTSON L.L.P., 555 13th Street, N.W., Washington, D.C. 20004

Celine Jimenez Crowson, Reg. No. 40,357

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

FIRST NAMED INVENTOR	SIGNATURE	DATE
Andrew Augustine Wajs		22 6 99
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SECOND NAMED INVENTOR	SIGNATURE	DATE
Robert Fransdonk		6/7/2000
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POST OFFICE ADDRESS		
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